REVIEW OF SCHWARTZ/TECHRAD MATERIALS re SOONER DIAL

1. (For Jimmy Givens) Is Mr. Schwartz willing to give us information regarding EDO Corporation?

2. Are there personnel still with or available to EDO who might be able to reconstruct information which would be helpful in determining proper remediations?

3 pp2 of TechRad letter - issue of acceptable level is an important one. How do we relate this site to levels used at Kerr McGee Cushing site and those proposed for Fansteel?

4. Curious. try item - check file for date site first came to our attention compared to 1969 date of cessation of operation.

5. pp1, paragraph 1 - first line "less" - a typo?

6. pp2, paragraph 4 - do we have an agreement of Duncan and WMK in lab? Is lab able to do as described? The lab used 250 gram soil samples on the rubble site, I believe.

7. pp2, paragraph 5 - I believe that the instrument readings will be in cpm/100 cm^2 (or cpm/57 cm^2) which must be converted mathematically to dpm/100 cm^2. Also, the 100 dpm/ 100 cms^2 is a "speed limit"; do we agree with this? Another concern here is failure to distinguish between "fixed" and "removable" alpha . If there is a controversy regarding this distinction, then this is one issue which should be included in any letter or discussion with Tech Rad - There is a "PR" concern here in that, if there are concerns raised by current occupants of buildings or by the press, we should consider taking surface alpha levels down as close to zero as technically feasible, considering cost also.

8. pp2, paragraph 6 - I think a uR/hr survey of old Army-Navy building should be done also. I think neighbors to the west and south west should be contacted regarding this as well as for PR reasons. My point here is contact more than just one owner and during contact extend survey (if wanted by owner/resident to those properties of all who are contacted where requested or if the situation so indicates, an alpha survey should be considered (or done) at selected locations on these properties and inside these houses. The reference in this paragraph to paragraph 3 is incorrect, it should say paragraph 5.

8a. pp2, paragraph 6 - As a second thought, my suggestion for extended surveys (in Item 8) at neighbors' properties should have included the suggestion that such surveys should be conducted by CPS/RPD personnel and contractor (TechRad) personnel.

9. pp2, paragraph 7 - The emphasis on "public access" areas should be noted.

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10. pp3, paragraph 8 - Lacking better information, I have estimated the site to be 100' X 100' excluding the Starcade building, the bar ditch area by the street, and the alley. Thus 1% is about 10 - 15' X 10 - 15'. This "pilot plant" operation is a good suggestion, I think; however, I wonder how we (OSDH & TechRad) will determine where the plot will be. Also, the entire site is quite small and this may bring up some problems. I think a, b, & c are the more important elements here.

11. pp3 & 4, paragraph 9 - regarding 9(c) especially, I worry about the size of the site and the need for another site nearby where some activities could be carried on to allow necessary activities on-site to go on without inconveniences.

12. pp4, paragraph 2 - under "standards & criteria" - There seem to be missing copy or a typo which makes the first sentence incomprehensible.

13. pp5, 3rd line - There is copy missing or a typo which confuses the meaning of the sentence, however there is a point to this sentence: we (OSDH) should consider taking soil samples in the clinton area to determine the background soil radium content.

14. pp5, subparagraphs a, b, & c - For the moment, I will not disagree with any of these proposals. However, I do have some comments about them:

(a) The use of the word "surface" here implies that these are to be taken at the surface of the ground. Referring to TechRad's survey data (next pp) leads me to wonder if a surface reading limit of 20 will not cause the need for the entire site to be cleaned up. Another way of looking at this is to ask the question: are the low levels (let's say the 25's and 30's in the southeast corner of the site), which were taken at 1 meter above the ground, the result of normal background (probably not), are they the result of direct gamma and/or scattered compton from the radium elsewhere on the site (probably are to some extent), or are they the result of gamma radiation coming more-or-less up from the ground directly below the detector (maybe, maybe not)? A third way of looking at this is to ask the questions; If, in some way, we could remove the radium from a very small area centered on the point where the 1 meter reading is 1200, would the remainder of the surface readings fall to levels below 20 mR/hour?

(a) In addition , regarding the figure of "20", is this the instantaneous maximum reading observed over a short period of time (say one minute), or is it an averaged value of several maximums and minimums observed over a short periods (say one minute); I prefer the latter.

(b) Are these figures consistent with those agreed to/used at Kerr McGee Cushing and those proposed for Fansteel? If not, we need to consider what our position should be.

(b) Second, these values assume a relatively uniform distribution of the radium in the soil. Should the possibility that all or much of the radium on the site is not

uniformly mixed with the soil enter into this proposed limit?
(b) Third, there is a direct, proportional (although perhaps tenuous) relationship between the limits of (a) and (b). Thus, the question arises : should (a) and (b) limits have equal status, should (a) have priority over (b), or should (b) limits be the final criteria? As written, the language implies that the site as a whole and each individual sample of that site must heed the limits of both (a) and (b).
(c) For the Eberline PAC alpha detector, we may find that the 100 dpm/100 cm^2 limit corresponds to an instantaneous reading of essentially zero in cpm, due to detector geometry and efficiency, among other things.

15. The results of the radiation survey by TechRad appear to be quite consistent with survey data by various members of the OSDH staff over the years.

16. Site Characterization Cost Estimate page - Since they propose to use OSDH/SEL/Radiation Lab for analysis of samples, are the dollar amounts per sample consistent with SEL cost schedules? Would SEL ant to make a written agreement on the analysis of these samples with either CPS/RPD or TechRad?

There is an implication in this estimate that TechRad intends to buy an alpha detector and a uR meter.

17. Preliminary Remedial Action Plan page, Item 3 - Contrary to the conditions stated in this subparagraph, I suggest that a well-concerned public relations program be started as soon as all parties involved have agreed to a plan of action to survey the site and remediate it. In other words, there should be no delay in preparing and carrying forward a public relations program once we have some definite schedules and site-activities decided upon.

18. CERCLA page - What's the latest from our Hazardous Waste Service people regarding this issue and Sooner Dial?

Material reviewed and comments
prepared 3-11 and 12, 1992 by
Dale McHard.

Review of Schwartz / Tech Rad
materials re Sooner Dad

1. (For Jimmy Greene) Is MW. Schwartz willing to give us info re EDO Corporation?
2. Are there personnel still w/ or available to EDO who might be able to reconstruct info which would be helpful in determining proper remediation?
3. pp 2 of Tech Rad letter — issue of acceptable level is an important one. How do we relate this site to levels used at K-M Cushing site & those proposed for Fansteel?
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reasons. My point here is contact more
than just one owner & during contact
extend survey (if wanted by owner/resident)
to those properties of all who are contacted
where requested or if the situation so
indicates, an alpha survey should be
considered (or done) at selected locations
on these properties & inside these houses.
The reference in this ¶ to "¶ 3" is
incorrect; it should say "¶ 5"

pp 2(6)

8A. pp 2, ¶6 – As a second thought, my suggestion for extended surveys (in item 8) at neighbors' properties should have included the suggestion that such surveys should be conducted by CPS/RPD personnel only or, as an alternative, OSHD personnel and contractor (Tech Rad) personnel.

9. pp 2, ¶ 7 — The emphasis ~~on~~ on "public access" areas should be noted.

10. pp 3, ¶ 8 — Lacking better info, I have estimated the site to be 100' x 100' excluding the Stewcade Bldg, the bar ditch area by street, & the alley. Thus, 1% is about 10-15' x 10-15'. This "pilot plant" operation is a good suggestion, I think; however, I wonder how we (OSDH & Jechlad) will determine where the plot will be. Also, the entire site is quite small, & this may bring up some problems. I think a, b, & c are the more important elements here.

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is to ask the question: Are the low levels (let's say the 25's and 30's in the southeast corner of the site), which were taken at 1 meter above the ground, the result of normal background (probably not), are they the result of direct gamma and/or scattered compton from the radium elsewhere on the site (probably are to some extent), or are they the result of gamma radiation coming more-or-less straight up from the ground directly below the detector (maybe, maybe not)? A third way of looking at this is to ask the question: If, in some way, we could remove the radium from a very small area centered on the point where the 1-meter level is 1200, would the remainder of the surface readings fall to levels below 120 μR/hr?

(2) In addition, regarding the figure of "20," is this instantaneous maximum reading observed over a short period (say 1 minute), or is it an averaged value of several maximums and minimums observed over a short period (say 1 minute); I prefer the latter.

(b) Are these figures consistent with those agreed to / used at K-H Cushing and those proposed for Fansteel? If not, we need to consider what our position should be.

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Material reviewed and comments prepared 3-11 and 12, 1992 by Dale M. Bacs